

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

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)	
TERRY SWACK, Individually and on Behalf)	
of all Others Similarly Situated,)	
)	
Plaintiff,)	
)	
- against -)	No. 02-CV-11943 DPW
)	
CREDIT SUISSE FIRST BOSTON and MARK)	
WOLFENBERGER,)	
)	
Defendants.)	
)	
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AFFIDAVIT OF R. ALAN MILLER

COMMONWEALTH OF PENNSYLVANIA)	
)	SS:
COUNTY OF DELAWARE)	

R. Alan Miller, being duly sworn, deposes and says:

1. I am submitting this Affidavit in Support of Lead Plaintiff's Motion For Class Certification.

2. I am President of Philadelphia Investment Banking Company ("PIBC"). A copy of my resume is attached as Exhibit A hereto, which outlines my professional experience and expertise. Included in Exhibit A is a list of the thirty cases in which I have testified in court. I have been qualified or accepted as an expert on the operations and efficiency of the securities markets, damages, materiality issues, investment banking practices, valuations and related corporate finance matters in numerous federal and state courts nationwide beginning in 1977. I

have provided many more depositions and submitted numerous Declarations and Affidavits on matters in these areas, including many dealing with market efficiency questions or the factors relevant to such studies.

3. PIBC provides a wide range of corporate finance services to clients. These services include raising capital through private placements of debt and equity financings; financial analysis and advisory services re: public offerings of securities; merger, acquisition and divestiture services; evaluation and economic analysis services; consulting and litigation support; and other financial services.

4. PIBC and its principals perform a considerable amount of work in the areas of evaluation of businesses and securities and the factors involved in such evaluation. These are done on a formal basis for a variety of purposes, as well as continuously on an informal basis in the process of performing our corporate finance functions such as raising capital, assisting in mergers and acquisitions, etc. The factors used in such evaluations and their importance and materiality to the investment community are areas in which I have developed expertise and had substantial experience over the last thirty-three years. Additionally, we have prepared a substantial number of analyses of market impact and damages in connection with numerous shareholder litigations.

5. I have been asked by counsel for Plaintiff to examine the impact that Credit Suisse First Boston (“CSFB”) had on the market price for Razorfish (“Razorfish” or the “Company”) common stock during the Class Period at issue and to review and comment on Defendants’ Opposition To Plaintiff’s Motion For Class Certification (“Defendants’ Brief”).

6. The following is among the information we have reviewed to date:

- Second Consolidated Amended Class Action Complaint (the “Complaint”)
- Memorandum and Order—September 21, 2004
- Lead Plaintiff’s Motion For Class Certification
- Defendants’ Opposition To Plaintiff’s Motion For Class Certification
- Affidavit of Laurence J. Portnoy
- Commonly available databases for stock price and volume information
- Lists of brokerage industry analyst reports on Razorfish, and selected reports including CSFB reports
- List of news reports and press releases on Razorfish, and selected articles

7. Defendants have raised the issue of whether CSFB’s analyst reports had an impact on the Razorfish stock price during the Class Period. In securities fraud cases, inflation means causing a price to be higher¹ than it would have been had the alleged fraudulent conduct not occurred. Therefore, in evaluating the impact of a statement, the comparison is properly made not with the last price preceding the statement, but with the price that would have resulted from the correct information being disclosed—i.e., absent the omission and misstatement. This is perhaps even clearer in the case of an omission, which will obviously create no market impact when it occurs, but the disclosure of the correct information at that time might well have had an impact on the market price of the security in question.

8. It is widely accepted that stock prices reflect the total mix of information about the subject security that is in the market at any point in time. In this matter, as is common, that mix will include information about the general economy and market, as well as “company-

¹ References herein are to a “buyer’s case” for clarity.

specific” information, including reports from brokerage firm analysts. The concept of the proper view of inflation described above as the difference between the stock price resulting from the omissions and misstatements and the stock price that would have resulted absent same, becomes even more important in the context of the mix of information. If negative information (versus what was expected), for example, reaches market participants and at about the same time a positive news input occurs from another (fraudulent) source, the stock price may still decline but not as much as it would have absent the positive news item. So the price was inflated by the fraudulent information even though it declined in that instance.

9. Also relevant to this examination are the practices of brokerage firm analysts and their colleagues with respect to writing reports and disseminating information. There appears to be a natural tendency to focus on the publication date of an analyst report as the date on which the contents thereof would have reached market participants. In fact, sometimes that is the case and sometimes not. Reports, notes, comments, and other written forms of analyst communication are prepared, edited, and are (supposed to be) reviewed by a “supervisory analyst” before publication. Meanwhile, oral communications occur a) within the research department, b) with other members of the analyst’s brokerage firm including stockbrokers individually, or in mass communication devices such as conference calls, morning meetings (which are often held firm-wide electronically), “squawk boxes”, “yell downs,” “voiceblasts” or in similar ways, and c) with customers through telephone calls, emails and/or meetings. So the contents of a report can, in some cases, reach the market prior to the publication date. It has become generally accepted that the phenomenon of increasing trading volume and stock price can often be observed just prior to formal announcements of mergers

and acquisitions. This “leakage” also occurs with other information, such as analysts reports, on occasion.

10. A further aspect of brokerage firm practice supports the observation that analyst reports (and communications generally) can and often do affect stock prices. That is, the purpose of providing research coverage on stocks (aside from the investment banking conflicts at issue in these cases) is to generate sales ideas for brokers to use to generate trades from their existing and new customers, and therefore produce commission revenues for the firm. The fact that the heavy majority of recommendations during the late 1990’s and early 2000’s were “buy” or higher is consistent with this observation, as a “buy” order can be received from anyone (not just existing customers), where a “sell” order can only be generated from those who already own the stock. So, given that stock prices are set by supply and demand, a “buy” (or above) recommendation that generates buying volume will result in a higher price than if such a recommendation had not occurred. Similarly, a “buy” or above recommendation and a target price above the then-current price will likely result in more demand for the stock than would have occurred absent the positive recommendation and target price, even if the price is then declining.

11. Defendants also claim that difficulties exist in measuring inflation (and its existence and persistence) during various times during the Razorfish Class Period, therefore the class members will have conflicts. On page 25 of their Brief, Defendants discuss their view that in most class action securities matters, the price becomes inflated at the beginning of the Class Period, then the inflation continues at a constant dollar level until a curative disclosure at the end. We have conducted many hundreds of damage/inflation analyses in 10b-

5 securities class action cases over the last twenty years. The process of determining a “true value line” at which level a subject stock would have traded absent omissions and misstatements during a class period is conducted in all, or certainly most, 10b-5 cases. Such a process is heavily dependent on the facts which apply in each situation, and it would be here as well. It is common that the amount of inflation of the actual transaction price over the true values will fluctuate throughout a class period, sometimes widely. It would be unusual if it did not. In fact, in those cases where there is a constant inflation factor, it is most often appropriately a constant percentage of the actual stock trading price, not a constant dollar amount. And given normal stock price fluctuations, a constant percentage inflation factor will produce varying dollar inflation amounts.

12. Defendants attempt to contrast Razorfish with their “normal” case, with assumed constant (dollar) inflation, suggesting that here an atypically large conflict is created between class members because of the “zero-sum” nature of inflation damages in a case (Razorfish) where inflation is dissipating over time. This makes no sense - that a certain level of inflation, corresponding to the true value at that date, would necessarily affect the level of inflation at a different time in the class period, corresponding to the true value on that second date. In the numerous matters in which we have performed these types of analyses and in the many others we have reviewed, we have determined (or observed) true value lines of many differing shapes. Often, particularly in cases dating to the period around the year 2000, the true value would be extremely low at the beginning of the class period (had the respective alleged omissions and misstatements not occurred), and remained so throughout the period while the actual stock price started high and declined somewhat steadily throughout. Another

common true value line shape is a step-function where the true value declines sharply on a partial disclosure, is relatively flat until the next adjustment date, then declines again. So converging stock price and true value lines (as occur with dissipating inflation) are not at all uncommon. The fact that this might occur is certainly no reason not to certify a class of purchasers at inflated prices. And no ‘zero-sum’ situation is created.

13. Further, Defendants claim that inflation cannot persist through the end of the Class Period as the last CSFB report which caused a Razorfish price increase occurred about a year earlier. Again, their confusions about inflation being linked to a price increase instead of the price being higher than should have been absent the omissions and misstatements make their position wrong. In fact, on the last day of the period when CSFB downgraded Razorfish stock, the price increased 2.46%, compared with the Hambrecht and Quist Internet Index’s increase of 2.41%. However, on the day before, very significant negative news was announced by the Company, which appears to have taken much or possibly all remaining inflation out of the stock price.

14. Defendants also claim that a “damage formula” needs to be identified at this stage, and that the determination of inflation here will be unmanageable due to, essentially, the large quantity of data involved. To determine the amount of artificial inflation caused by defendant’s actions, a true value line must be determined by assuming that the defendant’s omissions and misstatements did not occur. So fact discovery is necessary, and an appropriate methodology for determining the true value line would emerge therefrom, and may involve different methods or “formulas” for different subperiods of the Class Period. But the process of identifying how Razorfish was perceived and valued by the investment community,

identifying omissions and misstatements as alleged or established, substituting the correct information into the chronology of information which did occur and determining in each instance the effect on true value, is the same procedurally as in (virtually) every 10b-5 case. While the amount of data involved here is large and the task will be time consuming, producing a reasonable determination of true value, and thus inflation, should not be unmanageable. It is clear, however, that to properly determine the appropriate true value line, complete fact discovery is necessary.

15. In evaluating market efficiency for stocks, the factors which are discussed in *Cammer v. Bloom*, 711 F.Supp. 1264 (D.N.J. 1989) (“*Cammer*”), are often used. They include: 1) average weekly trading volume; 2) number of analysts who follow the stock; 3) number of market makers or arbitrageurs; 4) the company’s eligibility to file an S-3 Registration Statement; and 5) the stock price’s reaction to unanticipated news. Clearly the market for Razorfish stock was efficient; the recognition of the importance of analysts in the Court’s analysis of information impacting the market is instructive.

16. The academic literature also recognizes that analyst reports affect or impact upon stock prices either alone or as reinforcing information to company news or other analyst reports. Numerous such studies and articles have been published over at least the last several decades; four from the Journal of Finance and one from the Journal of Financial Economics are included in Exhibit B hereto. These journals are generally accepted as among the leading, most respected publications in the field.

A. In the March 1996 Journal of Finance, Kent L. Womack studies analysts’ stock recommendations and concludes that they clearly impact market prices.

B. In the April 2001 Journal of Finance, Barber, Lehavy, McNichols, and Trueman write about the qualifications of the results of trading on analyst recommendations; in their article, it is clear that analysts affect stock prices.

C. In the October 2003 Journal of Finance, Brav and Lehavy study the effect of analysts' target prices on stock price and reference other articles studying other analyst factors, and conclude that all the analyst factors studied influence stock prices.

D. In the June 2004 Journal of Finance, Jegadeesh, Kim, Krische, and Lee study the information in, and effect of, analyst reports. Clearly the analyst reports affect market prices, and they comment on contributions to the mix: "Perhaps for this subset of firms [with less favorable quantitative signals] favorable analyst recommendations actually help delay the eventual convergence of price to the underlying fundamentals."

E. In the September 2004 Journal of Financial Economics, Ivkovic and Jegadeesh study content and timing of analyst reports; it is clear that they impact stock prices.

17. We have examined Razorfish stock price and volume data along with lists of articles, press releases, analyst reports and SEC filings to attempt to determine if market impact of CSFB analyst reports on the Razorfish stock price can be demonstrated. Clearly it can. On the following three dates, a CSFB report was issued, we have found no other "major" information recorded as then reaching market participants, and the Razorfish stock price moved clearly and in the expected direction. In the following tables, I have used movements in the H&Q Internet Index to compare to the Razorfish stock price movements in order to separate out market/industry price effects. The H&Q Internet Index is calculated from

the prices of stocks of companies active in the Internet business sector and we believe it is a good comparative for Razorfish's industry.

Date	Report Price	Target Price	Rating	Trading Volume	Closing Price	Previous Price	% Price Change	H&Q		Net Change
								Internet Index	% Index Change	
6/25/99 7:09am	\$13.10	\$22.50	Buy	781410	15.125	13.094	15.51%	407.59	-2.14%	17.65%
Title: Brand Drives Hiring/Business Momentum										
3/3/00 6:59am	\$35.94	\$75.00	Strg Buy	6882210	40.000	35.938	11.30%	1141.34	6.07%	5.23%
Title: On the Road with Management, Raising Numbers										
9/13/00 7:23am	\$11.63	\$46.00	Strg Buy	1210500	12.250	11.625	5.38%	723.32	1.33%	4.05%
Title: Q3 Update - Despite Expected Seasonality, Demand Robust										
<i>Razorfish stock price rose on the following day as well, by a net of 15.12%.</i>										
<i>(Copy attached as Exhibit C; I am informed that this was not produced by Defendants in the record.)</i>										

For additional data surrounding these dates, see Exhibit D.

18. In addition, there were seven dates on which CSFB issued reports which coincided in time with company news and/or other analysts reports, on which there may well have been CSFB impact as contributing to the mix. That CSFB would impact the mix is a highly reasonable inference considering a) the evidence set forth above as to its market impact, b) CSFB's influence in this market segment as set forth hereafter, c) its own e-mail admissions, d) the academic literature, and e) our observations and experience. We are continuing to study other potential "impact" dates and data as well. See Exhibit E.

Date	Report Price	Target Price	Rating	Trading Volume	Closing Price	Previous Price	% Price Change	H&Q		Net Change
								Internet Index	% Index Change	
5/24/99 7:44am				660600	18.188	19.656	-7.47%	423.20	-7.65%	0.18%
Title: Bloomberg News: Razorfish Inc. Rated New 'Buy' at CSFB										
<i>Although the price increased modestly (net of index) on report date, on prior day price increased 8.08% on no apparent news indicating likely leakage; Lehman report also issued same day as CSFB. See Exhibit F for article explaining that "10-percent losses" were the norm for internet stocks.</i>										

7/16/99 7:25am	\$17.16	\$22.50	Buy	439200	18.125	17.156	5.65%	480.61	-1.06%	6.71%
Title: Acquires Fuel, Strengthens Broadband Skillset Company announced acquisitions prior day after close of market										
7/21/99 8:11am	\$16.44	\$22.50	Buy	1067610	19.625	16.438	19.39%	454.51	3.22%	16.17%
Title: Booming 2Q On All Fronts Company announced earnings prior day after close of market										
12/2/99 5:44am	\$34.00	\$62.50	Strg Buy	2151000	36.625	34.000	7.72%	699.40	5.27%	2.45%
Title: Gets It, Raising Numbers Management very upbeat; project size increasing										
1/12/00 7:13am	\$40.63	\$62.50	Strg Buy	1719390	43.563	40.625	7.23%	852.29	-3.85%	11.08%
Title: Digital Convergence Hitting Sweet Spot Company also announced stock split before market opened										
5/26/00 6:56am	\$13.50	\$46.00	Strg Buy	3250890	15.000	13.500	11.11%	561.70	0.22%	10.91%
Title: Analyst Day Unveils Broadband Push Analyst meeting: 3 other analyst reports published on this date										
10/27/00 8:02am	\$4.44	N/A	Buy	1231710	4.438	4.438	0.00%	552.47	-1.28%	1.28%
Title: The Results Are In, Forecast Not Good, Resetting Ratings Again										

19. The following group is of dates on which CSFB issued reports with positive ratings and the Razorfish price declined. In most cases, significant negative news from the Company was announced just prior to the CSFB report. See Exhibit E.

Date	Report			Trading Volume	Closing Price	Previous Price	% Price Change	H&Q		Net Change
	Price	Target Price	Rating					Internet Index	% Index Change	
2/16/00 6:43am	\$51.88	\$75.00	Strg Buy	3727500	45.375	51.875	-12.53%	1000.49	1.20%	-13.73%
Title: Another Qtr of Accelerating Sequential Revenue Growth Company announced earns. CFO resign prior day after close of mkt										
4/26/00 7:49am	\$19.13	\$46.00	Strg Buy	1831800	18.813	19.125	-1.63%	661.86	-1.56%	-0.07%
Title: Another Outstanding Performance and a New CFO Company announced earns. New CFO prior day after close of mkt										
12/13/00 6:52am	\$3.09	\$5.00	Buy	10439310	1.750	3.094	-43.43%	440.73	-4.31%	-39.12%
Title: Industry Turbulence Continues, Preannounces Q4 Company announced profit warning prior day after close of mkt										

2/9/01 1:30am \$1.88 \$5.00 Buy 1231890 1.500 1.875 -20.00% 329.33 -4.92% -15.08%

Title: Overall Outlook Uncertain
Company announced 4Q loss prior day after close of mkt

20. Apart from the impact that analyst research reports have on a company's stock price, an influential securities firm such as CSFB can influence the market for a company's stock in other ways. For example, recommendations and advice to significant clients of the firm, particularly sizable institutional clients, affect trading in the Company's stock and hence the market price of that stock. As noted above, stock prices are set by supply and demand; therefore, activities that stimulate demand for a stock will cause an increase in the market price of the stock, other things being equal. In this case, there are indications that CSFB actively promoted Razorfish stock to its clients.

21. For example, as alleged in the Complaint (Par. 83), defendant Mark Wolfenberger stated in an e-mail to Razorfish on January 28, 2000 that he "went out with call this morning to swap out of [Sapient] and into [Razorfish]. Unfortunately crappy market but stock up some. [Sapient] down big." In fact, on January 28, 2000, Razorfish shares rose to an intraday high of \$47.88, up \$2.73, or 6%, from its opening price of \$45.15, before declining for the day, along with the NASDAQ generally, which was down 4% for the day. Complaint, par. 83; Exhibit C to the Affidavit of Lawrence J. Portnoy ("Portnoy Affidavit"). This increase in the price of Razorfish stock, which appears to have been caused in whole or in part by CSFB's efforts to promote the stock, is not correlated with any CSFB report issued on January 28, 2000.

22. Similarly, as revealed in e-mails dated July 10 and July 11, 2000, defendant Wolfendberger was "working the stock" and "working the stock hard." Complaint, Pars. 89-

90. Wolfenberger sent another e-mail on July 14, 2000, stating “We’re working the stock.”

Complaint, par.91. The price of Razorfish stock increased from a closing price of \$18.12 on Friday, July 7,2000 to close at \$22.75 on July 14, 2000, an increase of \$4.63, or 25%.

Exhibit C to the Portnoy Affidavit. No CSFB analyst reports were issued during this period.

23. CSFB clearly believed it was an influential factor in the market for technology stocks. CSFB issued a press release on January 31, 2000, under the headline “Barrons, Forbes, Wall Street Journal & IFR recognize CSFB’s #1 Position”. See Exhibit G. The press release leads with the statement: “Credit Suisse First Boston achieved #1 market share in technology financing as well as mergers and acquisitions in 1999....”. The press release quoted Barrons as stating that CSFB’s technology IPOs “performed best of all this year, soaring by an average of 320%”.

24. Notably, the press release commented that CSFB’s “global technology research team . . . also maintained its reputation last year as the largest, most credible and insightful team on Wall Street.” The press release also described how the global technology research team hosted “world class global investor conferences”, investor forums and “regional mini-tours for investors.”

25. The head of global technology research in CSFB’s Technology Group was quoted in the January 31, 2000 press release commenting on the Technology Group’s research analysts.

By deploying 33 technology research analysts, we are able to cover the industry quite broadly. By hiring analysts with in-depth knowledge we can provide clear insight into each sector....We then encourage each analyst to interpret...information in a fair and objective manner.

The head of research was further quoted that: "we believe we provide both institutional and corporate clients with strong help in navigating increasingly difficult waters."

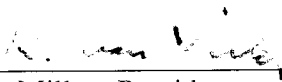
26. The January 31, 2000 press release listed Razorfish as one of CSFB's lead-managed IPOs.

27. Elliott Rogers (a former defendant in this case), who was deputy head of Global Technology Research at CSFB, was quoted in the January 31, 2000 press release with respect to CSFB's internet research:

We have by far the largest and most specialized Internet research team of any major firm, which gives us the bandwidth to cover more companies in greater depth.

28. For all these reasons, it is my opinion that CSFB's reports and other activities did impact the stock price for Razorfish, and that the full impact of CSFB's activities on the market price or Razorfish stock can not be determined solely by examining price movements on the days that research reports were issued. Complete discovery of CSFB's activities with respect to Razorfish is necessary to establish the total artificial inflation which occurred as a result of CSFB's conduct.

Signed under the pains and penalties of perjury this 7th day of March, 2005.



R. Alan Miller, President
Philadelphia Investment Banking Company
March 7, 2005